

### ABSTRACT OF THE DISCLOSURE

An integrated optical device and a method of fabricating the integrated optical device comprising at least one waveguide structure is provided. The waveguide structure is fabricated from a dielectric material selected from either (a) a dielectric matrix having quantum dots dispersed therein or (b) an electro-optical polymer. The fabrication method of the present invention incorporates the technique of nano-imprinting (or nano-embossing) a film of dielectric material to define the shape of the waveguide structure. The integrated optical device is operable as one of the following: a wavelength converter, a modulator, a switch, a router, a wavelength filter and a dispersion compensator.